

Patricia Leith 09/991,293

=> d his 11-123

(FILE 'HOME' ENTERED AT 11:21:58 ON 08 NOV 2004)

FILE 'HCAPLUS' ENTERED AT 11:22:05 ON 08 NOV 2004

L1 245125 S PEPTIDE#
L2 876 S L1 (L) (CU OR COPPER) (L) COMPLEX?
L3 151410 S EMULSI?
L4 6 S L3 AND L2

FILE 'REGISTRY' ENTERED AT 11:25:29 ON 08 NOV 2004

E COPPER II/CN
E COPPER/CN
L5 1 S E3

FILE 'CAPPLUS' ENTERED AT 11:26:08 ON 08 NOV 2004

L6 263 S L5/D (L) COMPLEX? (L) PEPTIDE#
L7 4 S L6 AND L3
L8 6 S L7 OR L4

FILE 'REGISTRY' ENTERED AT 11:27:41 ON 08 NOV 2004

ACT LEITH/A

L9 STR
L10 277 SEA FILE=REGISTRY SSS FUL L9

ACT LEITH2/A

L11 (739820)SEA FILE=REGISTRY ABB=ON PLU=ON [GKASV] H [KG] /SQSP
L12 31 SEA FILE=REGISTRY ABB=ON PLU=ON L11 AND CU/ELS

FILE 'CAPPLUS' ENTERED AT 11:27:57 ON 08 NOV 2004

L13 226 S L10
L14 15 S L12
L15 0 S L13 AND L3
L16 0 S L13 AND EMULSI?/AB
L17 0 S L14 AND L3
L18 0 S L14 AND EMULSI?/AB
L19 83439 S ANTIOXID?
L20 4 S L19 AND L13
L21 1 S L19 AND L14
L22 5 S L20 OR L21
L23 5 S L22 NOT L8

Patricia Leith 09/991, 293

=> fil reg

FILE 'REGISTRY' ENTERED AT 12:27:13 ON 08 NOV 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 7 NOV 2004 HIGHEST RN 776240-21-2
DICTIONARY FILE UPDATES: 7 NOV 2004 HIGHEST RN 776240-21-2

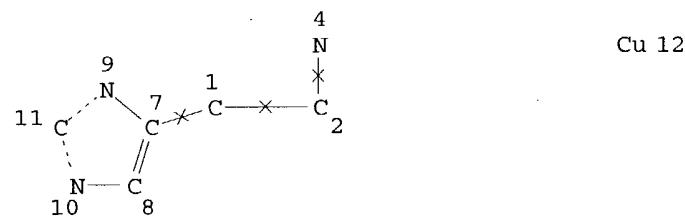
TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d que stat l10
L9 STR



NODE ATTRIBUTES:

NSPEC IS RC AT 12
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

(L10 277 SEA FILE=REGISTRY SSS FUL L9

100.0% PROCESSED 512 ITERATIONS
SEARCH TIME: 00.00.01

→ cover sequences
that have 3
or less amino
acids.

=> d que 112

L11 (739820)SEA FILE=REGISTRY ABB=ON PLU=ON [GKASV]H[KG]/SQSP
(L12 31 SEA FILE=REGISTRY ABB=ON PLU=ON L11 AND CU/ELS

=> fil caplus

searched by Alex Waclawiw Page 2

→ sequence search
for when you have
4 or more amino
acids.

FILE 'CPLUS' ENTERED AT 12:29:35 ON 08 NOV 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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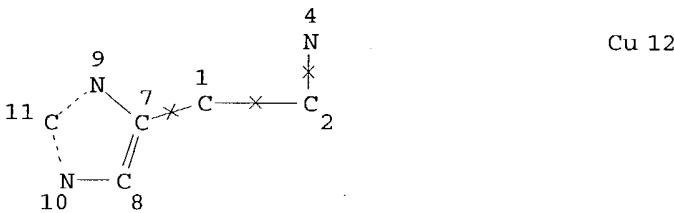
FILE COVERS 1907 - 8 Nov 2004 VOL 141 ISS 20
FILE LAST UPDATED: 7 Nov 2004 (20041107/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'CPLUS' FILE

=> d que 18
L1 245125 SEA FILE=HCAPLUS ABB=ON PLU=ON PEPTIDE#/OBI
L2 876 SEA FILE=HCAPLUS ABB=ON PLU=ON L1 (L) (CU/OBI OR COPPER/OBI
) (L) COMPLEX?/OBI
L3 151410 SEA FILE=HCAPLUS ABB=ON PLU=ON EMULSI?/OBI
L4 6 SEA FILE=HCAPLUS ABB=ON PLU=ON L3 AND L2
L5 1 SEA FILE=REGISTRY ABB=ON PLU=ON COPPER/CN
L6 263 SEA FILE=CAPLUS ABB=ON PLU=ON L5/D (L) COMPLEX?/OBI (L)
PEPTIDE#/OBI
L7 4 SEA FILE=CAPLUS ABB=ON PLU=ON L6 AND L3
L8 6 SEA FILE=CAPLUS ABB=ON PLU=ON L7 OR L4

=> d que 122
L9 STR



NODE ATTRIBUTES:

NSPEC IS RC AT 12
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

L10 277 SEA FILE=REGISTRY SSS FUL L9

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L11 ( 739820)SEA FILE=REGISTRY ABB=ON PLU=ON [GKASV]H[KG]/SQSP
L12      31 SEA FILE=REGISTRY ABB=ON PLU=ON L11 AND CU/ELS
L13      226 SEA FILE=CAPLUS ABB=ON PLU=ON L10
L14      15 SEA FILE=CAPLUS ABB=ON PLU=ON L12
L19      83439 SEA FILE=CAPLUS ABB=ON PLU=ON ANTIOXID?/OBI
L20      4 SEA FILE=CAPLUS ABB=ON PLU=ON L19 AND L13
L21      1 SEA FILE=CAPLUS ABB=ON PLU=ON L19 AND L14
L22      5 SEA FILE=CAPLUS ABB=ON PLU=ON L20 OR L21
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=> d .ca 18 1-6;d .ca hitstr 122 1-5

L8 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2004:825111 CAPLUS
 DOCUMENT NUMBER: 141:320088
 TITLE: Preserved and stable compositions containing
peptide copper complexes
 and methods related thereto
 INVENTOR(S): Patt, Leonard M.
 PATENT ASSIGNEE(S): Procyte Corporation, USA
 SOURCE: U.S. Pat. Appl. Publ., 12 pp.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004198639	A1	20041007	US 2003-405111	20030331
WO 2004087740	A2	20041014	WO 2004-US9546	20040329
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2003-405111 A 20030331

AB Compns. comprising at least one peptide copper complex and at least one preservative exhibit chemical stability of the peptide copper complex, as well as resistance and/or toxicity to microbial growth, when the preservative is selected to be a non-formaldehyde-donating preservative. In other embodiments, the present invention is directed to such compns. that are formulated for use as pharmaceuticals and cosmetic products, and to medical devices comprising a disclosed composition. In another aspect, the present invention is also directed to a method for imparting to a composition comprising at least one peptide copper complex, chemical stability as well as resistance and/or toxicity to microbial growth, where the method comprises incorporating a non-formaldehyde-donating preservative in the composition

IC ICM A61K038-16

NCL 514006000

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 62

ST preservative **peptide complex copper**

IT Skin, disease

(aging, wrinkles; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Cosmetics
(antiaging; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Drug delivery systems
(carriers; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Cosmetics
(conditioners; preservative and stabilizer compns. containing **peptide copper complexes**)
IT **Peptides**, biological studies
RL: COS (Cosmetic use); MOA (Modifier or additive use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**copper complexes**; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Cosmetics
(creams; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Petrolatum
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(creams; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Lanolin
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(derivs.; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Cosmetics
Drug delivery systems
(emollients; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Drug delivery systems
(gels; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Skin, disease
(hyperpigmentation; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Drug delivery systems
(liposomes; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Cosmetics
Drug delivery systems
(lotions; preservative and stabilizer compns. containing **peptide copper complexes**)
IT **Emulsions**
(microemulsions; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Encapsulation
(microencapsulation; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Cosmetics
(milks; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Photolysis
(of skin; preservative and stabilizer compns. containing **peptide copper complexes**)
IT Drug delivery systems

(ointments, creams; preservative and stabilizer compns. containing
peptide copper complexes)

IT Alcohols, biological studies
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(polyhydric, esters; preservative and stabilizer compns. containing
peptide copper complexes)

IT Beeswax
Buffers
Cosmetics
Drug delivery systems
Emulsifying agents
Humectants
Iontophoresis
Physiological saline solutions
Preservatives
Solvents
Sound and Ultrasound
Stabilizing agents
Sunscreens
Suntanning agents
Surfactants
Thickening agents
pH
(preservative and stabilizer compns. containing **peptide**
copper complexes)

IT Protein hydrolyzates
RL: COS (Cosmetic use); MOA (Modifier or additive use); PAC
(Pharmacological activity); THU (Therapeutic use); BIOL (Biological
study); USES (Uses)
(preservative and stabilizer compns. containing **peptide**
copper complexes)

IT Paraffin oils
Phospholipids, biological studies
Polysiloxanes, biological studies
Sterols
Waxes
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(preservative and stabilizer compns. containing **peptide**
copper complexes)

IT Cocoa butter
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(wax; preservative and stabilizer compns. containing **peptide**
copper complexes)

IT 99-96-7D, alkyl esters
RL: COS (Cosmetic use); MOA (Modifier or additive use); PAC
(Pharmacological activity); THU (Therapeutic use); BIOL (Biological
study); USES (Uses)
(Paraben; preservative and stabilizer compns. containing **peptide**
copper complexes)

IT 65-85-0, Benzoic acid, biological studies 65-85-0D, Benzoic acid, salts
100-51-6, Benzyl alcohol, biological studies 104-29-0 122-99-6,
Phenoxyethanol 3380-34-5, Triclosan 7440-50-8D, **Copper**
, **peptide complexes** 15158-11-9D, **Copper**
(II), **complexes with peptides**, biological studies
49557-75-7D, **copper II complexes** 71992-41-1
126828-32-8D, **copper II complexes** 510727-21-6D,
copper II complexes

RL: COS (Cosmetic use); MOA (Modifier or additive use); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preservative and stabilizer compns. containing peptide copper complexes)

IT 68-26-8, Retinol 302-79-4, Retinoic acid
 RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (preservative and stabilizer compns. containing peptide copper complexes)

IT 57-55-6, Propylene glycol, biological studies 9004-34-6D, Cellulose, derivs.
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (preservative and stabilizer compns. containing peptide copper complexes)

L8 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:41234 CAPLUS

DOCUMENT NUMBER: 140:99288

TITLE: Compositions containing peptide copper complexes and soft tissue fillers

INVENTOR(S): Patt, Leonard M.

PATENT ASSIGNEE(S): Procyte Corporation, USA

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004004671	A1	20040115	WO 2003-US20438	20030626
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004063616	A1	20040401	US 2003-607575	20030626
PRIORITY APPLN. INFO.:			US 2002-393563P	P 20020702

OTHER SOURCE(S): MARPAT 140:99288

AB Novel compns. are disclosed for treating skin defects and effecting desired cosmetic changes by way of soft tissue augmentation, combining at least one soft tissue filler and at least one peptide copper complex. Typically, the compns. are suitable for injection into skin areas in need of such treatment. Also disclosed are methods for treating skin defects and effecting desired cosmetic changes. One disclosed method employs the disclosed compns. wherein the soft tissue fillers and peptide copper complexes are combined. Other disclosed methods combine the soft tissue fillers and peptide copper complexes during application of the method itself by way of injection, or a combination of injection and topical application, of the fillers and complexes.

IC ICM A61K007-00
ICS A61K007-48; A61L027-00; A61L027-50; A61L027-54
CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 14, 63
ST cosmetic soft tissue augmentation **copper complex peptide**
IT Alcohols, biological studies
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);
USES (Uses)
(C16-18, ethoxylated; compns. containing **peptide copper complexes** and soft tissue fillers)
IT Glycerides, biological studies
RL: COS (Cosmetic use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(C8-10; compns. containing **peptide copper complexes** and soft tissue fillers)
IT Adipose tissue
(autologous; compns. containing **peptide copper complexes** and soft tissue fillers)
IT Drug delivery systems
(carriers; compns. containing **peptide copper complexes** and soft tissue fillers)
IT Beeswax
Buffers
Emulsifying agents
Human
Humectants
Physiological saline solutions
Preservatives
Sunscreens
Suntanning agents
Thickening agents
(compns. containing **peptide copper complexes** and soft tissue fillers)
IT Collagens, biological studies
Fluoropolymers, biological studies
Lanolin
Polyesters, biological studies
Polysiloxanes, biological studies
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);
USES (Uses)
(compns. containing **peptide copper complexes** and soft tissue fillers)
IT **Peptides**, biological studies
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);
USES (Uses)
(**copper complexes**; compns. containing **peptide copper complexes** and soft tissue fillers)
IT Liposomes
(cosmetic; compns. containing **peptide copper complexes** and soft tissue fillers)
IT Cosmetics
(emollients; compns. containing **peptide copper complexes** and soft tissue fillers)
IT Cosmetics
(gels; compns. containing **peptide copper complexes** and soft tissue fillers)
IT Skin
(injections for; compns. containing **peptide copper complexes** and soft tissue fillers)

IT Drug delivery systems
(injections, for the skin; compns. containing **peptide copper complexes** and soft tissue fillers)

IT Drug delivery systems
(liposomes; compns. containing **peptide copper complexes** and soft tissue fillers)

IT Paraffin waxes, biological studies
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);
USES (Uses)
(low-melting-pt.; compns. containing **peptide copper complexes** and soft tissue fillers)

IT Cosmetics
(skin-lightening; compns. containing **peptide copper complexes** and soft tissue fillers)

IT Animal tissue
(soft, fillers for; compns. containing **peptide copper complexes** and soft tissue fillers)

IT Cosmetics
(suspensions; compns. containing **peptide copper complexes** and soft tissue fillers)

IT Fats and Glyceridic oils, biological studies
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);
USES (Uses)
(vegetable; compns. containing **peptide copper complexes** and soft tissue fillers)

IT 9003-01-4D, crosslinked
RL: COS (Cosmetic use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Carbomer; compns. containing **peptide copper complexes** and soft tissue fillers)

IT 99-96-7D, alkyl esters
RL: COS (Cosmetic use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Parabens, preservative; compns. containing **peptide copper complexes** and soft tissue fillers)

IT 79-06-1D, Acrylamide, copolymers
RL: COS (Cosmetic use); MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. containing **peptide copper complexes** and soft tissue fillers)

IT 9002-89-5, Polyvinyl alcohol 9003-01-4, Polyacrylic acid 9004-62-0,
Hydroxyethylcellulose 9004-64-2, Hydroxypropylcellulose 25087-26-7,
Polymethacrylic acid
RL: COS (Cosmetic use); POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. containing **peptide copper complexes** and soft tissue fillers)

IT 50-70-4, Sorbitol, biological studies 57-50-1, Sucrose, biological studies 57-55-6, Propylene glycol, biological studies 9002-84-0,
Teflon 9004-34-6D, Cellulose, derivs. 9004-61-9, Hyaluronic acid 9005-25-8, Starch, biological studies 9011-14-7, Polymethylmethacrylate 15158-11-9D, Copper2+, **peptide complexes** 24991-23-9
25513-46-6, Polyglutamic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Polylactic acid 36653-82-4, Cetyl alcohol 49557-75-7D, **copper(II) complex** 52292-17-8,
Isosteareth 64248-79-9, Sodium isostearate 68814-13-1, Cetyl phosphate 126828-32-8D, **copper(II) complex** 510727-21-6D,
copper(II) complex
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study);
USES (Uses)

(compns. containing **peptide copper complexes**
and soft tissue fillers)

IT 100-51-6, Benzyl alcohol, biological studies 122-99-6, Phenoxyethanol
6440-58-0, DMDM hydantoin 55406-53-6 78491-02-8, Diazolidinyl urea
RL: COS (Cosmetic use); MOA (Modifier or additive use); THU (Therapeutic
use); BIOL (Biological study); USES (Uses)
(preservative; compns. containing **peptide copper**
complexes and soft tissue fillers)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:967913 CAPLUS

DOCUMENT NUMBER: 140:19611

TITLE: Cosmetic skin care compositions containing
thymosin- β 4

INVENTOR(S): Marini, Jan

PATENT ASSIGNEE(S): Jan Marini Skin Research, Inc., USA

SOURCE: Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1369107	A1	20031210	EP 2003-253154	20030520
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2003228266	A1	20031211	US 2002-161884	20020603

PRIORITY APPLN. INFO.: US 2002-161884 A 20020603

AB Cosmetic skin care compns. containing thymosin- β 4 are provided. The
compns. may also contain growth factors or steroids. The compns. improve
the appearance of aged or damaged skin.

IC ICM A61K007-48

CC 62-4 (Essential Oils and Cosmetics)

IT **Peptides**, biological studies

RL: COS (Cosmetic use); MOA (Modifier or additive use); BIOL (Biological
study); USES (Uses)
(copper complexes; cosmetic skin care compns.
containing thymosin- β 4)

IT Cosmetics

(emulsions; cosmetic skin care compns. containing
thymosin- β 4)

IT 50-28-2, Estradiol, biological studies 53-16-7, Estrone, biological
studies 57-83-0, Progesterone, biological studies 63-05-8,
Androstenedione 67-71-0, MSM 68-26-8, Retinol 69-72-7, Salicylic
acid, biological studies 79-14-1, Glycolic acid, biological studies
123-99-9, Azelaic acid, biological studies 137-66-6, Ascorbyl palmitate
303-98-0, Coenzyme q10 479-68-5, Broparoestrol 501-30-4, Kojic acid
4406-37-5, Pregnanolone 7440-50-8D, Copper,
peptide complexes 25126-76-5, Androstanediol
127464-60-2, Vascular endothelial growth factor

RL: COS (Cosmetic use); MOA (Modifier or additive use); BIOL (Biological
study); USES (Uses)
(cosmetic skin care compns. containing thymosin- β 4)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2003:300855 CAPLUS
 DOCUMENT NUMBER: 138:326275
 TITLE: Skin care compositions containing **peptide copper complexes** and retinol or its derivatives
 INVENTOR(S): Patt, Leonard M.
 PATENT ASSIGNEE(S): Procyte Corporation, USA
 SOURCE: PCT Int. Appl., 31 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003030860	A1	20030417	WO 2002-US32061	20021004
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003134780	A1	20030717	US 2002-264363	20021004
EP 1434561	A1	20040707	EP 2002-769001	20021004
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
PRIORITY APPLN. INFO.:			US 2001-327640P	P 20011005
			WO 2002-US32061	W 20021004

AB Compns., generally useful for preserving the skin and/or improving its health and appearance, comprise a peptide copper complex and retinol, or a retinol derivative. In another embodiment, the disclosed compns. further comprise additives, including emollients, sunscreen agents, skin protectants, skin conditioning agents, and/or humectants. Also disclosed is a method for treating skin to accomplish such preservation and/or improvement thereof, where the method comprises the step of topically applying a disclosed composition to an area of skin in need of such treatment. Thus, a moisturizing lotion contained water 73.80, glycerin 1.00, xanthan gum 0.50, diisopropyl adipate 4.00, isocetyl stearate 6.00, octyl palmitate 10.00, glyceryl stearate 1.00, cetyl alc. 1.00, stearyl alc. 0.80, behenyl alc. 0.50, palmitic acid 0.25, stearic acid 0.25, glycyl-L-histidyl-L-lysine copper complex 0.20, retinol 0.10, propylene glycol 0.55, diazolidinyl urea 0.03, and iodopropynyl butylcarbonate 0.02%.

IC ICM A61K007-48
 ICS A61K038-04; A61K031-07

CC 62-4 (Essential Oils and Cosmetics)

ST skin care **peptide copper complex** retinol

IT Skin, disease
 (aging, wrinkles; skin care compns. containing **peptide copper complexes** and retinol or its derivs.)

IT Skin, disease
 (aging; skin care compns. containing **peptide copper complexes** and retinol or its derivs.)

IT **Peptides**, biological studies
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(complexes, copper complexes; skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Cosmetics
(conditioners; skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Cosmetics
(creams; skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Cosmetics
(emollients; skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Cosmetics
(emulsions; skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Alcohols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(fatty; skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Bases, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(inorg.; skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Cosmetics
(liposomes; skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Cosmetics
(lotions; skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Bases, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(organic; skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Alcohols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(polyhydric, esters; skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Alcohols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(short-chain; skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Beeswax
Emulsifying agents

Human

Humectants

Physiological saline solutions

Skin

Sunscreens

Suntanning agents

Surfactants

Thickening agents
(skin care compns. containing peptide copper complexes and retinol or its derivs.)

IT Cocoa butter

Fatty acids, biological studies

Glycerides, biological studies

Glycols, biological studies

Hydrocarbon oils

Lanolin

Petrolatum

Phospholipids, biological studies
 Polysiloxanes, biological studies
 Sterols
 Waxes

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (skin care compns. containing **peptide copper complexes** and retinol or its derivs.)

IT 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid,
 biological studies 57-55-6, Propylene glycol, biological studies
 68-26-8, all-trans-Retinol 68-26-8D, Retinol, derivs. 79-80-1,
 3,4-Didehydroretinol 79-81-2, Retinyl palmitate 112-92-5, Stearyl
 alcohol 116-31-4, Retinal 127-47-9, Retinyl acetate 302-79-4,
 Retinoic acid 661-19-8, Behenyl alcohol 7069-42-3, Retinyl propionate
 9004-34-6D, Cellulose, derivs. 9006-65-9, Dimethicone 11099-07-3,
 Glyceryl stearate 15158-11-9D, **Copper(II), peptide complexes** 22737-97-9, 9-cis-Retinol 25339-09-7, Isocetyl
 stearate 29806-73-3, 2-Ethylhexyl palmitate 34513-50-3, Octyldodecanol
 36653-82-4, Cetyl alcohol 41669-30-1, IsoStearyl isostearate
 49557-75-7D, **complex with copper** 71566-49-9,
 2-Ethylhexyl isononanoate 84415-27-0 126828-32-8D, **complex with copper** 510727-21-6D, **complex with copper**
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (skin care compns. containing **peptide copper complexes** and retinol or its derivs.)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2001:895575 CAPLUS
 DOCUMENT NUMBER: 136:24959
 TITLE: Cosmetic skin care compositions containing
 α -interferon
 INVENTOR(S): Marini, Jan L.
 PATENT ASSIGNEE(S): Jan Marini Skin Research, Inc., USA
 SOURCE: U.S., 5 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6328987	B1	20011211	US 2000-705319	20001103
EP 1203579	A1	20020508	EP 2001-308850	20011018
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-705319 A 20001103
 AB Cosmetic skin care compns. containing α -interferon are provided. The
 compns. improve the appearance of aged or damaged skin. Thus, a
 formulation contained water 75.40, Carbomer 0.30, disodium EDTA 0.10,
 glycerin 3.00, Polysorbate-20 2.50, butylene Glycol 2.00, methylparaben
 0.30, triethanolamine 99% 0.30, iso-Pr myristate 5.00, octyl palmitate
 3.00, cetyl alc. 1.00, Dimethicone-100 0.50, beeswax 0.30, propylparaben
 0.10, Germall II 0.10, and fragrance 0.10%, and α -interferon 300 U.
 IC ICM A61K007-00
 ICS A61K007-40; A61K031-74; A61K007-42
 NCL 424407000
 CC 62-4 (Essential Oils and Cosmetics)

IT Cosmetics
 (emulsions; skin cosmetic compns. containing α -interferon)
 IT 50-28-2, Estradiol, biological studies 53-16-7, Estrone, biological studies 57-83-0, Progesterone, biological studies 63-05-8, Androstanedione 67-71-0, Methylsulfonylmethane 68-26-8, Retinol 69-72-7, Salicylic acid, biological studies 79-14-1, Glycolic acid, biological studies 123-99-9, Azelaic acid, biological studies 137-66-6, Ascorbyl palmitate 145-13-1, Pregnenolone 303-98-0, Coenzyme Q10 479-68-5, Broparoestrol 501-30-4, Kojic acid 7440-50-8D, Copper, peptide complexes 25126-76-5, Androstanediol
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (skin cosmetic compns. containing α -interferon)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2001:885683 CAPLUS
 DOCUMENT NUMBER: 136:11191
 TITLE: Composition and method for enhancing elasticity of tissue
 INVENTOR(S): Mitts, Thomas F.; Sandberg, Lawrence B.; Jimenez, Felipe, Jr.
 PATENT ASSIGNEE(S): Connective Tissue Imagineering Llc, USA
 SOURCE: PCT Int. Appl., 53 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001091700	A2	20011206	WO 2001-US17384	20010530
WO 2001091700	C1	20031120		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6506731	B1	20030114	US 2000-584001	20000530
US 6794362	B1	20040921	US 2000-580893	20000530
US 6809075	B1	20041026	US 2000-580110	20000530
AU 2001075018	A5	20011211	AU 2001-75018	20010530
EP 1392346	A2	20040303	EP 2001-941684	20010530
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
NO 2003000454	A	20030129	NO 2003-454	20030129
PRIORITY APPLN. INFO.:			US 2000-580110	A 20000530
			US 2000-580156	A 20000530
			US 2000-580893	A 20000530
			US 2000-584001	A 20000530
			US 1998-39308	A2 19980313
			WO 1999-US5496	A2 19990312
			WO 2001-US17384	W 20010530

OTHER SOURCE(S): MARPAT 136:11191

AB The present invention is directed to a composition and method used to enhance the elasticity and/or appearance of tissue. Specifically, the present invention is directed to a composition formulated from peptides having low mol. wts. and which substantially correspond to sequences found in elastin.

IC ICM A61K

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 62

IT Cosmetics

(emulsions; elastin peptides and method for enhancing elasticity of tissue)

IT 302-79-4, Retinoic acid 686-50-0 1187-50-4 **7440-50-8D**,
Copper, peptide complexes 58272-50-7
61434-54-6 66835-73-2 68293-03-8 69288-25-1 103584-76-5
165745-00-6 211750-16-2 243647-47-4 243647-50-9 243647-54-3
243647-56-5 243647-58-7 243647-61-2 243647-63-4 243647-65-6
243647-67-8 243647-68-9 243647-70-3 243647-72-5 243647-73-6
243647-75-8 243647-77-0 243647-79-2 243647-82-7 243647-84-9
243647-87-2 243647-90-7 243647-92-9 243647-94-1 243647-97-4
243647-98-5 243647-99-6 243648-00-2 243648-01-3 243648-03-5
243648-04-6 243648-05-7 243648-06-8 376352-67-9 376352-68-0
376352-69-1 376352-70-4 376352-71-5 376352-72-6 376352-73-7
376352-74-8 376352-74-8D, **copper complexes**
376352-75-9 376352-75-9D, **copper complexes**
376352-76-0 376352-76-0D, **copper complexes**
376352-77-1 376352-78-2 376352-79-3 376352-80-6 376352-81-7
376352-82-8 376352-82-8D, **copper complexes**
376352-83-9 376352-83-9D, **copper complexes**
376352-84-0 376352-84-0D, **copper complexes**
376352-85-1 376352-86-2 376352-87-3 376352-88-4 376352-89-5
376352-89-5D, **copper complexes** 376352-90-8
376352-90-8D, **copper complexes** 376352-91-9
376352-91-9D, **copper complexes**

RL: COS (Cosmetic use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(elastin **peptides** and method for enhancing elasticity of tissue)

L22 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:902003 CAPLUS

DOCUMENT NUMBER: 136:100524

TITLE: Disturbed copper transport in humans. Part 1:
Mutations of the ATP7A gene leads to Menkes disease
and occipital horn syndrome

AUTHOR(S): Seidel, Joerg; Birk Moller, Lisbeth; Mentzel,
Hans-Joachim; Kauf, Eberhard; Vogt, Susanna; Patzer,
Steffi; Wollina, Uwe; Zintl, Felix; Horn, Nina

CORPORATE SOURCE: Department of Pediatrics, Friedrich-Schiller
University of Jena, Jena, D-07740, Germany

SOURCE: Cellular and Molecular Biology (Paris, France, Online)
(2001), 47, OL141-OL148

CODEN: CMBPBN; ISSN: 1165-158X

URL: <http://www.cmb-ass.com/Vol/Vol47/online47-20.htm>

PUBLISHER: CMB Association

DOCUMENT TYPE: Journal; (online computer file)

LANGUAGE: English

AB Mutations of the ATP7A gene (OMIM 300011) lead to the Menkes disease (MD, OMIM 309400) involving impaired brain development, neurol.

degeneration, connective tissue abnormalities, and high lethality in early infancy. Occipital horn syndrome (OHS, OMIM 304150), a milder phenotype, is also caused by ATP7A gene mutations. In MD patients, an early copper-histidine treatment may prevent the neurol. impairment and prolong survival leading to an OHS phenotype. To demonstrate the genotype/phenotype correlation, two male patients are reported with different ATP7A gene mutations and several phenotypes. In the first patient with the MD phenotype, a mutation within the exon 20 (Gln1288Ter) was found producing a stop codon just prior to the highly conserved ATP binding domain. The OHS phenotype of the second patient was caused by a splice site mutation involving the position +6 of intron 6 within a copper-binding domain. Small amts. of correctly spliced ATP7A transcript were sufficient to develop the milder OHS phenotype in this patient (OMIM 30001.0006). In conclusion, mutations of the copper transporting P-type ATPase ATP7A gene cause distinct human diseases showing some genotype/phenotype correlation and implications for treatment.

CC 14-10 (Mammalian Pathological Biochemistry)

Section cross-reference(s): 1, 3, 18

ST copper transport ATP7A gene mutation Menkes disease; ATPase P type genotype occipital horn syndrome; vitamin E selenium ascorbate antioxidant copper histidine Menkes disease

IT **Antioxidants**

(disturbed copper transport in humans and mutations of ATP7A gene leading to Menkes disease and occipital horn syndrome in relation to)

IT 50-81-7, Ascorbic acid, biological studies 1406-18-4, Vitamin E
7782-49-2, Selenium, biological studies 13870-80-9,

Copper-histidine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(disturbed copper transport in humans and mutations of ATP7A gene leading to Menkes disease and occipital horn syndrome in relation to)

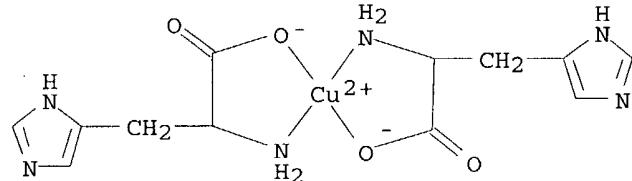
IT 13870-80-9, Copper-histidine

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(disturbed copper transport in humans and mutations of ATP7A gene leading to Menkes disease and occipital horn syndrome in relation to)

RN 13870-80-9 CAPLUS

CN Copper, bis(L-histidinato-κN,κO)- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

36

THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:718839 CAPLUS

DOCUMENT NUMBER: 130:118551

TITLE:

Coordinating properties of cyclopeptides.

Thermodynamic and spectroscopic study on the formation of copper(II) complexes with cyclo(Gly-His)₄ and cyclo(Gly-His-Gly)₂ and their superoxide dismutase-like activity

AUTHOR(S) : Bonomo, Raffaele P.; Impellizzeri, Giuseppe;
 Pappalardo, Giuseppe; Purrello, Roberto; Rizzarelli,
 Enrico; Tabbi, Giovanni

CORPORATE SOURCE: Department of Chemical Sciences, University of
 Catania, Catania, 95125, Italy

SOURCE: Journal of the Chemical Society, Dalton Transactions:
 Inorganic Chemistry (1998), (22), 3851-3858
 CODEN: JCDTBI; ISSN: 0300-9246

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two cyclopeptides, cyclo(GlyHis)4 and cyclo(GlyHisGly)2 were synthesized with the specific aim to form Cu(II) complexes which are able to mimic the active site of superoxide dismutase. Proton and Cu(II) complexes were thermodynamically characterized. The Cu(II) complexes were also studied by optical and ESR spectroscopy to gain information on their structural features and by voltammetry to know about their redox ability. Also, the antioxidant activity of these complex species was tested against enzymically generated superoxide radical. Depending on the pH value of the solution, definite complexes could be characterized, in particular [Cu{cyclo(GlyHis)4}]²⁺ and [Cu{cyclo(GlyHis)4}H-2] and [Cu{cyclo(GlyHisGly)2}H-2] are the main species, which were taken into consideration to assay their antioxidant catalytic activity. The ESR studies suggested that a four-N coordination by imidazole N atoms or deprotonated peptide N atoms forms the environment around Cu. At the same coordination level, the redox properties of these compds. parallel their scavenging abilities against O₂⁻ which are lower than those of other Cu(II) complexes previously tested. The [Cu{cyclo(GlyHis)4}]²⁺ complex showed higher redox potential and better catalytic ability than [Cu{cyclo(GlyHis)4}H-2] and [Cu{cyclo(GlyHisGly)2}H-2], which have roughly similar redox potentials and scavenging abilities.

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s) : 7, 34, 68, 72

ST redn potential copper glycine histidine cyclopeptide; copper glycine histidine cyclopeptide formation **antioxidant** activity; superoxide dismutase model **antioxidant** activity copper glycine histidine cyclopeptide; stability const copper glycine histidine cyclopeptide complex; protonation const glycine histidine cyclopeptide; ESR copper glycine histidine cyclopeptide

IT Enzyme functional sites

(active; copper glycine-histidine cyclopeptide complexes as models for **antioxidant** activity of superoxide dismutase)

IT **Antioxidants**

(copper complexes with glycine-histidine cyclopeptides as models for superoxide dismutase)

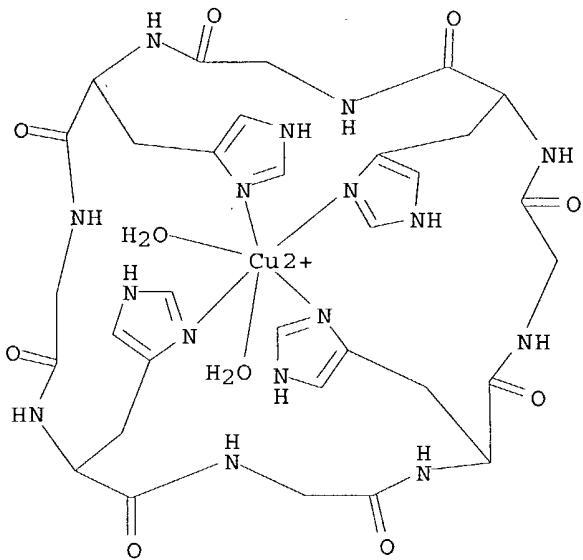
IT 7440-50-8DP, Copper, glycylhistidinyl cyclopeptide complexes, preparation 219743-86-9DP, copper complex **219743-89-2P 219743-93-8P**
 RL: CAT (Catalyst use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (formation and ESR and stability consts. and reduction potential and **antioxidant** activity as model for superoxide dismutase)

IT **219743-89-2P 219743-93-8P**

RL: CAT (Catalyst use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (formation and ESR and stability consts. and reduction potential and **antioxidant** activity as model for superoxide dismutase)

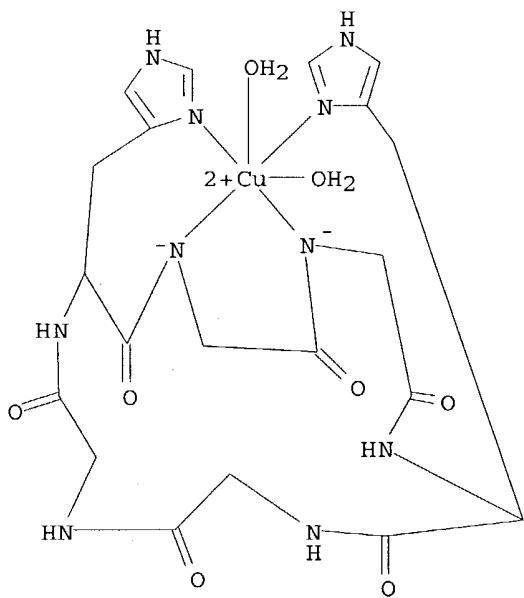
RN 219743-89-2 CAPLUS

CN Copper(2+), diaqua[cyclo(glycyl-L-histidyl- κ N3-glycyl-L-histidyl- κ N3-glycyl-L-histidyl- κ N3-glycyl-L-histidyl- κ N3)]⁻,
 (OC-6-12)- (9CI) (CA INDEX NAME)



RN 219743-93-8 CAPLUS

CN Copper, diaqua[cyclo(glycyl-κN-glycyl-κN-L-histidyl-κN3-glycylglycyl-L-histidyl-κN3)ato(2-)]-, (OC-6-15)- (9CI) (CA INDEX NAME)



REFERENCE COUNT:

48

THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:97195 CAPLUS

DOCUMENT NUMBER: 128:225950

TITLE: Nitroxide radicals prevent metal-aggravated

AUTHOR(S): reperfusion injury in isolated rat heart
 Zeltcer, Galina; Berenshtein, Eduard; Samuni, Amram;
 Chevion, Mordechai

CORPORATE SOURCE: The Department of Cellular Biochemistry, The Hebrew University-Hadassah Medical School, Jerusalem, 91120, Israel

SOURCE: Free Radical Research (1997), 27(6), 627-635
 CODEN: FRARER; ISSN: 1071-5762

PUBLISHER: Harwood Academic Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effects of Cu(II) and the stable nitroxide radical 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TPL) on reperfusion injury following global myocardial ischemia were studied in the Langendorff perfused, isolated rat heart model. Hearts were equilibrated with Krebs-Henseleit buffer for 10 min and subjected to 18 min of normothermic global ischemia. When 10 μ M Cu nitrilotriacetate or Cu (histidine)₂ was included in the perfusate before, during, and following ischemia, the heart injury was more extensive (as shown by detns. of various functional parameters) and the work index recovered to only 17% of the preischemic value. The inclusion of 100 μ M TPL during reperfusion abolished the Cu-induced sensitization. In the absence of Cu, TPL did not provide any protection against ischemia-reperfusion damage to the heart. The inclusion of 100 μ M 1,4-dihydroxy-2,2,6,6-tetramethylpiperidine (TPL-H) during reperfusion partially abolished the Cu-induced sensitization. Since conversion between TPL and TPL-H takes place, the fact that both forms provide protection may increase their protective efficacy.

CC 1-8 (Pharmacology)

ST heart ischemia reperfusion copper nitroxide radical; **antioxidant**
 nitroxide radical heart ischemia reperfusion

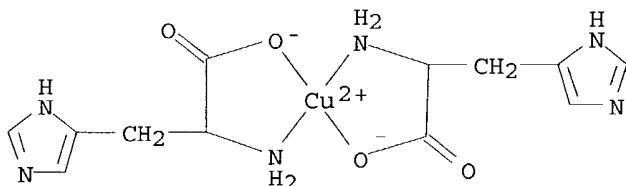
IT **Antioxidants**
 (copper-aggravated heart ischemia-reperfusion injury inhibition by nitroxide radicals as)

IT 13870-80-9 15158-11-9, Copper(II), biological studies
 15844-52-7, Cupric nitrilotriacetate
 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (nitroxide radicals prevention of heart ischemia-reperfusion injury aggravated by)

IT 13870-80-9
 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (nitroxide radicals prevention of heart ischemia-reperfusion injury aggravated by)

RN 13870-80-9 CAPLUS

CN Copper, bis(L-histidinato- κ N, κ O)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L22 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 1996:452879 CAPLUS
 DOCUMENT NUMBER: 125:211078
 TITLE: Copper(II) complexes with cyclo(L-aspartyl-L-aspartyl) and cyclo(L-glutamyl-L-glutamyl) derivatives and their **antioxidant** properties
 AUTHOR(S): Bonomo, Raffaele P.; Conte, Enrico; Impellizzeri, Giuseppe; Pappalardo, Giuseppe; Purrello, Roberto; Rizzarelli, Enrico
 CORPORATE SOURCE: Dip. Scienze Chimiche, Catania, 95125, Italy
 SOURCE: Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry (1996), (14), 3093-3099
 CODEN: JCDTBI; ISSN: 0300-9246
 PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Two new functionalized cyclodipeptides were synthesized with the aim of obtaining a good model of superoxide dismutase. Better to mimic the active site of this metalloenzyme, these two compds. were designed to allow a great coordination flexibility. Cu(II) complexes with cyclo(-L-aspartyl-L-aspartyl-) or cyclo(-L-glutamyl-L-glutamyl-)bis(histamine) (L) were thermodynamically and spectroscopically characterized and their antioxidant activity tested against enzymically generated O₂⁻. Taking into account the speciation of the system, the more active species against O₂⁻ is the [CuL₂]²⁺ complex. ESR measurements suggest for this species the presence of four imidazole N atoms in a slightly tetrahedrally distorted coordination plane. The [CuLH₂] complex species also possesses four-N coordination involving two deprotonated peptide N atoms. [CuL₂]²⁺ showed the highest antioxidant activity and reasons for this behavior are proposed from spectroscopic and voltammetric data.

CC 78-7 (Inorganic Chemicals and Reactions)
 Section cross-reference(s): 7, 34, 68

ST superoxide dismutase model copper cycloaspartylaspartylbishistamine cycloglutamylglutamylbishistamine; copper cycloaspartylaspartylbishistamine cycloglutamylglutamylbishistamine stability **antioxidant** activity; cycloaspartylaspartylbishistamine copper stability **antioxidant** activity; cycloglutamylglutamylbishistamine copper stability **antioxidant** activity; cycloglutamylglutamylbishistamine cycloaspartylaspartylbishistamine stability copper cycloaspartylaspartylbishistamine cycloglutamylglutamylbishistamine; stability copper cycloaspartylaspartylbishistamine cycloglutamylglutamylbishistamine; cyclodipeptide bishistamine copper stability **antioxidant** activity

IT 9054-89-1, Superoxide dismutase
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); CAT (Catalyst use); BIOL (Biological study); USES (Uses)
 (stability and **antioxidant** activity of copper cycloglutamylglutamyl- and cycloaspartylaspartylbis(histamine) complexes as models for)

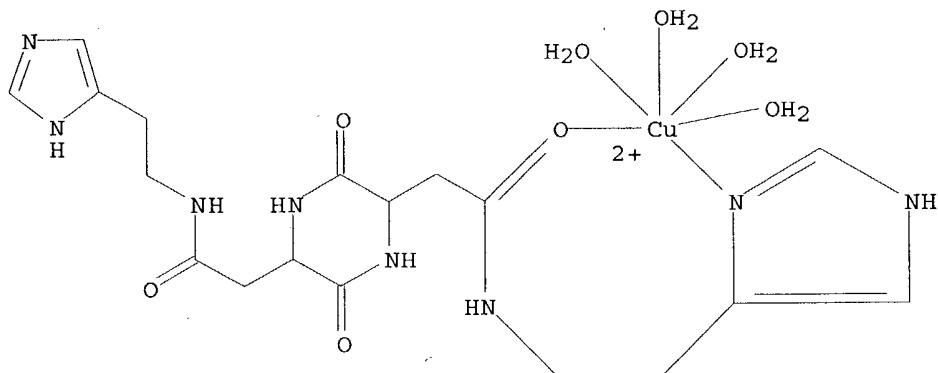
IT 181274-81-7 181274-83-9 181274-85-1 181274-87-3 181274-89-5 181274-91-9 181274-93-1 181274-95-3 181274-97-5
 RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)
 (stability consts. and ESR as superoxide dismutase model)

IT 181274-81-7 181274-83-9
 RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation, nonpreparative)

(stability consts. and ESR as superoxide dismutase model)

RN 181274-81-7 CAPLUS

CN Copper(2+), tetraqua[N,N'-bis[2-(1H-imidazol-4-yl)ethyl]-3,6-dioxo-2,5-piperazinediacetamide]-, conjugate monoacid, [OC-6-23-(2S-cis)]- (9CI)
(CA INDEX NAME)

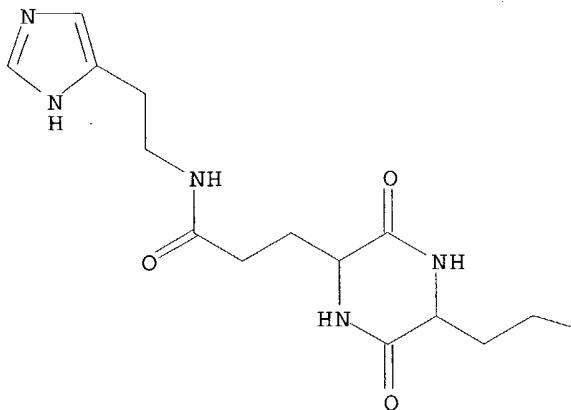


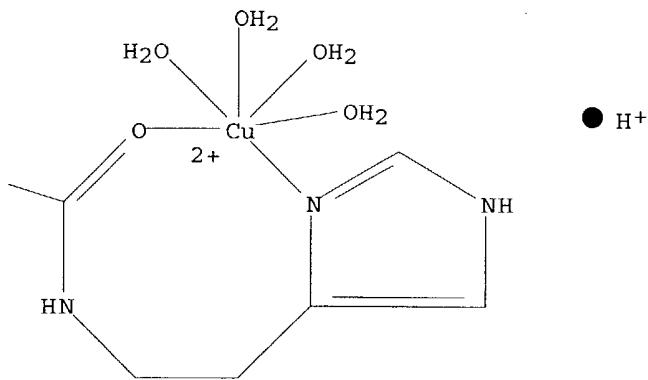
● H⁺

RN 181274-83-9 CAPLUS

CN Copper(2+), tetraqua[N,N'-bis[2-(1H-imidazol-4-yl)ethyl]-3,6-dioxo-2,5-piperazinedipropanamide]-, conjugate monoacid, [OC-6-23-(2S-cis)]- (9CI)
(CA INDEX NAME)

PAGE 1-A





L22 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1982:30112 CAPLUS

DOCUMENT NUMBER: 96:30112

TITLE: **Antioxidant effect of cupric complex on NADPH-dependent lipid peroxidation in rat liver microsomes**

AUTHOR(S): Yamashoji, Shiro; Kajimoto, Goro

CORPORATE SOURCE: Fac. Nutr., Kobe Gakuin Univ., Kobe, 673, Japan

SOURCE: Biochimica et Biophysica Acta (1981), 666(3), 442-5
CODEN: BBACAO; ISSN: 0006-3002

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The antioxidant effect of His-Cu (histidine + Cu^{2+}) on NADPH-dependent lipid peroxidn. was proportional to the inhibitory effect on cytochrome c reduction in the presence of microsomes and ADP-Fe (ADP + Fe^{3+}). The inhibition of cytochrome c reduction by His-Cu caused no inhibition of NADPH oxidation ADP-Fe stimulated NADPH oxidation in the absence of cytochrome c, and inhibited cytochrome c reduction His-Cu inhibited NADPH-oxidation stimulated by

ADP-Fe in the absence of cytochrome c. His-Cu decreased the duration of cytochrome bs reduction in the presence of ADP-Fe, but the antioxidant effect of His-Cu was independent of the effect on cytochrome bs reduction. Apparently, the antioxidant effect of His-Cu depends on the inhibitory effect on the electron transport from NADPH-cytochrome c reductase to ADP-Fe, but not on the inhibitory effect on the reductase activity.

CC 6-1 (General Biochemistry)

ST histidine copper **antioxidant** lipid peroxidn; liver microsome lipid peroxidn **antioxidant**; NADPH cytochrome electron transport **antioxidant**

IT Liver, metabolism

(lipid peroxidn. by microsomes of, histidine-copper complex **antioxidant** effect on, electron transport system in)

IT Microsome

(lipid peroxidn. by, in liver, histidine-copper complex **antioxidant** effect on, electron transport system in)

IT Peroxidation
(of lipids, by liver microsomes, histidine-copper complex
antioxidant effect on, electron transport in)

IT Lipids, biological studies
RL: BIOL (Biological study)
(peroxidn. of, by liver microsomes, histidine-copper complex
antioxidant effect on, electron transport system in relation
to)

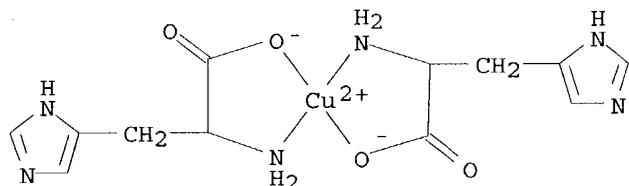
IT 53-57-6
RL: BIOL (Biological study)
(in lipid peroxidn., by liver microsomes, histidine-copper complex
antioxidant effect in relation to)

IT 13870-80-9
RL: BIOL (Biological study)
(lipid oxidation in liver microsomes inhibition by, electron transport
from NADPH-cytochrome c reductase in relation to)

IT 13870-80-9
RL: BIOL (Biological study)
(lipid oxidation in liver microsomes inhibition by, electron transport
from NADPH-cytochrome c reductase in relation to)

RN 13870-80-9 CAPLUS

CN Copper, bis(L-histidinato- κ N, κ O) - (9CI) (CA INDEX NAME)



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